

## Programme Specification: Undergraduate

### For students starting in Academic Year 2017/2018

#### 1. Course Summary

<b>Names of programme(s) and award title(s)</b>	<p>BSc (Hons) Environment and Sustainability          BSc (Hons) Environment and Sustainability with Work Placement Year          BSc (Hons) Environment and Sustainability with International Year (see Annex A for details)</p> <p>NB: the default award for the Single Honours Environment &amp; Sustainability is a BSc Honours degree. However, students who successfully complete at Level 6 60 credits or more of Social Sciences modules receive a BA Honours degree. The 60 credits can be made up of Education, Human Geography, Politics and Criminology based modules and may include the 30 credits from the Dissertation if it is of a social science nature.</p>
<b>Award type</b>	Single Honours
<b>Mode of study</b>	Full time
<b>Framework of Higher Education Qualification (FHEQ) level of final award</b>	Level 6
<b>Duration</b>	<p>3 years          4 years with either the Placement Year or International Year between years 2 and 3</p>
<b>Location of study</b>	Keele University – main campus
<b>Accreditation (if applicable)</b>	This programme is accredited by: the Institution of Environmental Sciences (IES) – for further details see section 12
<b>Regulator</b>	Higher Education Funding Council for England (HEFCE)
<b>Tuition Fees</b>	<p><b>UK/EU students:</b>          Fee for 2017/18 is £9,250*</p> <p><b>International students:</b>          Fee for 2017/18 is £15,250**</p> <p>The fee for the international year abroad is calculated at 15% of the standard year fee</p>

\* These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at <http://www.keele.ac.uk/studentfunding/tuitionfees/>

\*\* We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at <http://www.keele.ac.uk/studentfunding/tuitionfees/>

	The fee for the placement year is calculated at 20% of the standard year fee
<b>Additional Costs</b>	Refer to section 18

**How this information might change:** Please read the important information at <http://www.keele.ac.uk/student-agreement/>. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.

## 2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on Environment and Sustainability. In keeping with Keele’s commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules outside Environment and Sustainability, in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

The Environment and Sustainability degree is highly interdisciplinary, drawing on teaching from three different Faculties within the University, integrating natural science perspectives of the environment with teaching on social science (e.g. politics) and health aspects of the environment. Hence this Single Honours programme is in keeping with Keele’s tradition of a broad education.

The Environment and Sustainability programme may lead to either a BA or BSc award based on the nature of the modules and Dissertation carried out in the final year (Level 6). The Environment and Sustainability programme aims to create graduates who have an understanding of environmental and sustainability issues from both natural and social science perspectives. The programme is therefore designed so that at Levels 4 and 5 students gain a background in both these areas, but are then able to specialise in either the social science or natural science aspects of environmental and sustainability issues (or combine both natural and social sciences) in their final year.

## 3. Overview of the Programme

The study of environmental and sustainability problems and solutions is a rapidly growing academic field as societies around the world face increasing environmental threats posed by climate change, loss of biodiversity, depletion of resources and pollution of water bodies and the atmosphere. In order to tackle contemporary environmental and sustainability problems effectively, it is essential to have people who are conversant with both the scientific aspects and the human causes and costs of these complex problems.

The Environment and Sustainability degree at Keele University aims to produce graduates who are able to cross the traditional science-social science divide, providing tremendous opportunities to work in a range of sectors. Graduates will have a broad and deep understanding of environmental problems and be conversant with strategies for moving towards sustainability in many different contexts.

The programme is taught across three different faculties and integrates over eleven different disciplines including geosciences, life sciences, chemical sciences, politics and international relations, management and health. The first year provides students with the background and training in tackling environment and sustainability issues using a number of different approaches and disciplinary backgrounds. The training becomes more specialist in the second year, covering more applied sustainability areas while also providing students with training in carrying out independent research.

The four-year Work Placement option provides students with the opportunity to undertake a sustainability-focussed work placement (minimum 30 weeks full time (1050 hours), or equivalent) between the 2<sup>nd</sup> and 3<sup>rd</sup> year of their degree programme.

There is a lot of flexibility in the final year for students to study in depth the areas of environment and sustainability which are of most interest to them, through a combination of independent study and taught modules allowing students to specialise or to maintain a broad environment and sustainability portfolio and

mould their degree to their interests and determine whether they graduate with a BSc or a BA degree.. This degree structure is designed to cater for those students with general interests in the environment and environmental and sustainability issues, and for those with clear environmental/sustainability career aspirations. Environment and Sustainability is a highly innovative degree programme, and a leader in its field in the United Kingdom and covers an incredibly exciting and relevant subject for today's society with ever- increasing employment prospects and career opportunities.

#### **4. Aims of the Programme**

On successful completion of a degree in Environment and Sustainability you will:

- have developed a sound understanding of different natural science and social science perspectives of environment and sustainability issues and how these can be applied to tackle the world's environmental and sustainability problems, and be able to apply these perspectives to these problems.
- be able to integrate scientific knowledge, and an awareness of social, economic and ethical issues, to address the management of the environment and tackle environmental problems such as climate change, water pollution, water resource scarcity and atmospheric pollution as well as wider sustainability issues.
- have gained a wide-range of data collection and analysis skills, including the ability to carry out independent research, relevant to the investigation of environmental and sustainability issues across the social and natural sciences.
- have developed to a high professional standard, generic employability skills in report writing and other written communication styles, information technology, numeracy, oral presentation, team work and independent work, problem solving and searching, and evaluating literature and related-resources.
- (Work Placement year only) have gained substantial experience of work in the environment and sustainability sector, including familiarisation with the professional working environment.

#### **5. What you will learn**

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Intellectual skills
- Key or transferable skills (including employability skills)

#### **Subject knowledge and understanding**

The structure of the programme and the options available emphasise the interdisciplinary context of the programme, with core modules from different Schools covering natural and social sciences as well as health and management perspectives, and optional modules further developing some of these themes from a range of different disciplines including politics, international relations, psychology, life sciences, sociology, geography, geology, and environmental science. The intended learning outcomes listed below are categorised into different broad disciplinary approaches and based on the core modules within the programme

#### **Interdisciplinary sustainability modules**

The interdisciplinary sustainability modules will allow successful students to:

#### **Year 1 (Level 4)**

- demonstrate knowledge and understanding of a range of core issues of sustainability and the concepts of environment and sustainability as seen by different disciplines;

- demonstrate an awareness of how interdisciplinary approaches work together and/or in tension;
- communicate ideas and arguments effectively in a range of written and oral formats including the use of standard academic requirements such as referencing;
- work with team members to identify, distribute and undertake tasks necessary to complete a project. reflect on and evaluate his/her own learning experience in order to improve the learning experience in future stages of the programme;
- demonstrate familiarity with a range of ecological and geochemical laboratory and field techniques and collect, synthesize, evaluate and present environmental (geochemical, ecological, geological) data;
- explain the environmental and social sustainability responsibilities of organisations;
- explain the environmental and social impacts of different sectors and activities within organisations (e.g. energy, transport, waste);
- explain the processes by which organisations can audit, improve, and monitor environmental and social impacts within the workplace;
- research the environmental and social impacts and their potential solutions, of an area of an organisation's operations;
- communicate professionally in video format the conclusions and recommendations for future improvements from research into an aspect of the sustainability operations of the University;
- reflect on their own learning and the links between course material and their own lives.
- describe the ways in which people interact with their environment and their approaches to dealing with environmental problems;
- gather and synthesize information and use this information to discuss, in written form, a variety of environmental issues;
- explain the complementary nature of physical science and social science approaches to tackling environmental issues;
- account for the relationship between 'hard scientific facts' and the contested nature of their interpretation in the environmental context.

### **Year 2 (Level 5)**

- carry out a personal skills audit in relation to their work placement and identify their skills gaps and translate these into achievable learning outcomes;
- relate academic theory learnt as part of the taught degree to real situations in the work place;
- develop needed work-related skills through practice;
- critically evaluate their learning from the work placement;
- enhance their career knowledge;
- design a piece of research achievable as a third year dissertation project and applicable to the field of environment and sustainability, showing an ability to synthesize the research literature, select appropriate techniques for data collection and analysis, and understand ethics and risk assessment;
- research an environmental issue relating to a specific geographical area, utilising a wide range of different sources and synthesise and present this as an oral presentation;
- describe and apply appropriate techniques and methodologies within the context of environment and sustainability field data collection;
- apply theoretical knowledge and understanding of environment and sustainability issues to specific geographical and environmental contexts.

### **Year 3 (Level 6)**

- source, interpret and synthesize literature that is relevant to a chosen topic
- critically review relevant literature within the dissertation;
- plan, design and execute, using appropriate research methods and processes, an independent piece of research relevant to Environment and Sustainability;
- communicate effectively and persuasively the results of independent research in written form;
- work as a team member and make individual contributions to team process and products (presentation and report);

- carry out an in depth, interdisciplinary sustainability analysis of a specific case, using well-defined tools, as part of team and in a timely fashion;
- synthesise research and communicate the results of an analysis in different forms (written and graphic) to different audiences (lay-people and specialists);
- identify and explain the main models, methods and criteria for carrying out a sustainability analysis;
- reflect on and critically evaluate a team project, including the quality of the process and final products and the quality of one's own contributions to the team;
- apply key theoretical concepts and ethical principles in the field of sustainability in order to analyse critically a complex 'real life' case or problem;
- plan and carry out a piece of collaborative research;
- review and summarise the research and technical literature of a particular clean technology;
- develop a detailed critical appraisal in a report format of their chosen technology;
- present their research in an engaging poster format and discuss their research with their peers;
- critically evaluate the potential of their chosen clean technology in society's progress towards a more sustainable future.

## **Natural Sciences**

The natural science modules will allow successful students to:

### **Year 1 (Level 4)**

- outline the ways in which ecological populations and communities function and interact;
- perform calculations involving simple population dynamics models;
- evaluate basic theories and concepts in ecology and conservation;
- describe the ecology and environmental issues of a specified ecosystem;
- describe the internal structure and composition of the Earth and its development since the formation of the Solar System;
- demonstrate an understanding of the theory of plate tectonics, its manifestation on the Earth's current surface, and the consequences of its operation in the geological past;
- recognise and describe minerals in hand specimen and thin section using a hand lens, petrological microscope and related techniques;
- describe the three major subdivisions of rocks in terms of how they are formed and how their properties relate to environmental science issues;
- use techniques for the acquisition, interpretation, analysis and visualisation of geoscience data (e.g. geological maps);
- interpret geological maps in order to understand the geological structure and stratigraphy of specific study areas, and be able to synthesise observations and interpretations within a geological report.

### **Year 2 (Level 5)**

- discuss a broad range of human impacts on the environment and their wider significance and possible solutions;
- communicate effectively in written form about an environmental issue, including possible solutions and barriers to their adoption, in an interesting, engaging and informative way;
- search for and assimilate information from the literature on a key environmental issue;
- describe and explain, in scientific terms, the key causes of negative environmental impacts on air, water and soil quality.

## **Social Sciences**

The social science modules will allow successful students to:

### **Year 1 (Level 4)**

- explain the emergence of 'the environment' as an object of social scientific study and political debate;

- explain the development of, and debates about, the concepts of 'sustainable development' and 'sustainability';
- identify and critically discuss - by applying relevant conceptual tools - the social, political, economic, and cultural factors that have led to the problem of 'unsustainability';
- develop an argument and assemble a coherent analysis that is communicated effectively, using an appropriate academic writing style and correctly apply the Harvard system of referencing;
- participate with confidence in tutorial discussions, having prepared effectively in advance. Skills of effective speaking, *listening, and question posing will be developed.*

## **Year 2 (Level 5)**

- analyse the historical origins and the evolution of the concepts of corporate governance and social responsibility;
- understand the use of relevant theoretical frameworks to analyse corporate governance and social responsibility issues;
- systematically and critically evaluate corporate governance, social issues, and environmental issues;
- critically assess the role of the accounting profession in encouraging development of corporate governance codes, examining their impacts on corporate performance;
- critically assess the role of green policies and socially responsible investment in the development of accounting for corporate responsibility;
- critically appraise the key issues of corporate governance and environmental accounting for business strategy;
- demonstrate the complex way in which businesses governance relates to internal and external stakeholders, and to the natural environment;
- use of tools, techniques and strategies for managing and supporting corporate governance and social responsibility in practice;
- contribute to the future of corporate governance practice and social responsibility performance and reporting, to enhance the *skills of reviewing and presenting scholarly work, and to develop skills of theorizing empirical observations.*
- distinguish between a range of perspectives on environmental issues and appreciate how environmental issues may be understood as political issues;
- identify and explain the political dimensions of environmental issues, while understanding the particular historical, cultural and social contexts in which they arise;
- identify and explain the range of strategies available for bringing about environmental-political change, including the policy process at different levels, corporate environmental responsibility, and social movement activism;
- apply conceptual tools in order to analyse critically environmental problems and controversies;
- identify and formulate effective arguments;
- communicate effectively verbally and in writing;
- interpret and distinguish between different theoretical and empirical approaches to the study of global and transboundary environmental problems;
- analyse key problems in the international relations of the environment, integrating theoretical concepts and empirical material;
- acquire, assess, organise and engage with a variety of sources as part of conducting research;
- effectively and fluently communicate complex arguments supported by appropriate evidence in oral form;
- work productively with others in order to ensure that their individual contributions to the exploration of a set of related problems are effectively coordinated;
- demonstrate knowledge, understanding and the ability to critically evaluate the effects differing environmental factors can have on human mental and physical health;
- understand the effect the changing environment may have on human mental and physical health and to demonstrate knowledge and the ability to critically evaluate these changes.

## **Subject specific skills**

Successful students will be able to:

- collect and record qualitative and quantitative information in the field pertinent to solving environmental problems;
- plan, design and execute an independent piece of project work relevant to environment and sustainability, including acquisition and recording of data in the field, followed by the processing, interpretation and presentation of this data, and the production of a final report;
- develop practical skills, including note-taking and representation of data in graph or table formats;
- undertake exercises involving geological maps and cross-sections, and the ability to deduce a sequence of geological events from a geological map;
- make safe and effective use of a range of field equipment commonly used by the environmental science profession and develop an understanding of the scope and limitations of such equipment;
- undertake effective fieldwork with due regard for safety, risk assessment, rights of access, relevant health and safety regulations and sensitivity to the impact of investigations on the environment;
- work safely in a scientific laboratory, with awareness of standard methods and procedures and with due regard for risk assessment and relevant health and safety regulations;
- employ a variety of technical and laboratory-based methods for the collection and analysis of information relevant to the environment;
- combine and interpret different types of living and non-living evidence relevant to the environment using quantitative and qualitative approaches;
- appreciate the issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of environmental data in the field and laboratory;
- use powers of observation, analysis and imagination to make decisions in the light of uncertainty;
- critically evaluate the different approaches to sustainability in an urban context and frame policy questions in relation to a variety of temporal and spatial scales;
- apply theoretical tools in the analysis of environmental problems and controversies;
- appreciate the dynamic nature of the discipline and understand the contribution of research to the development of knowledge;
- apply appropriate methods and approaches to the assessment of a particular environmental problem or case;
- understand the principles, theory and practice of risk assessment;
- be able to conceptualise the interaction of human and physical systems and the operation of natural hazards at their interface;
- identify a range of interdisciplinary strategies and methods for analysing and responding to environmental problems in order to promote sustainability; awareness of how interdisciplinary approaches work together and/or in tension.

*Individual module specifications should be consulted for information on subject-specific skills covered within individual modules*

### **Intellectual skills**

Successful students will be able to:

- recognise and use subject-specific theories, concepts and principles to make reasoned decisions and solve problems;
- analyse, synthesise and summarise data and information critically, including undertaking prior research;
- collect and integrate several lines of evidence to formulate and test hypotheses, and make critical judgements;
- apply knowledge and understanding to address familiar and unfamiliar problems;
- assess the merits of contrasting theories, explanations and policies;
- recognise the moral and ethical issues of investigations and appreciate the need for professional codes of conduct;
- develop an adaptable and flexible approach to study and work;
- identify and work towards targets for personal, academic and career development;

- take responsibility for their own learning and develop a habit of reflection upon that learning;
- work as part of a team;
- employ good presentation skills;
- undertake research work independently;
- employ self-directed modes of learning;
- practically apply academic research;
- analyse, evaluate and report published research;
- develop collaborative and leadership skills through working as a member of a team to prepare a team oral presentation, and through participation in tutorial discussions;
- use good oral and written communication skills;
- identify and formulate effective arguments.

### **Key or transferable skills (including employability skills)**

Successful students will be able to:

- develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity;
- communicate effectively to a variety of audiences in written, verbal and graphical forms;
- work with numerical data using appropriate qualitative and quantitative techniques, as well as computer software packages;
- work effectively with a variety of types of information technology to analyse and present information and data, as well as solve numerical problems;
- use the internet as a means of communication and a source of information;
- demonstrate competence in spatial awareness and observation;
- conduct field and laboratory studies;
- reference work in an appropriate manner;
- work with information handling and retrieval systems using data from a wide range of sources;
- work effectively both as an individual and as part of a group or team, recognising and respecting the viewpoints of others;
- sustain motivation to work towards a goal over an extended period of time;
- recognise responsibilities as a local, national and international citizen;
- evaluate their own employability skills (via a SWOT Analysis) and develop their own intended learning outcomes (ILOs);
- develop, through practice in the work place, the work-related skills identified through their SWOT analysis and ILOs;
- apply academic theory learnt as part of the taught degree to real situations in the work place;
- critically evaluate their learning from the work placement;
- explain how the professional environmental sector operates and what skills are needed to develop their career.

### **The Keele Approach to Education**

The Environment & Sustainability programme is strongly aligned with the key themes within ‘The Keele Approach to Education’ - sustainability, internationalisation and employability. The programme ensures that all students have the opportunities to fully develop the capabilities (graduate attributes) of ‘The Keele Approach to Education’.

#### **Sustainability**

The sustainability of our society is at the core of the Environment & Sustainability programme, with a focus on environmental and wider sustainability issues ranging from pollution, sustainable resource use, to the causes and impacts of environmental change. Students develop a deep understanding of the concept of sustainability in many different contexts and from many different perspectives, across the environmental, social, economic and ethical aspects of sustainability. The programme aims to provide students with the skills and aptitude for

working positively towards a sustainable future in their careers and lives as both students and graduates. Keele has a leading reputation in environmental and sustainability teaching and research and Environment & Sustainability students have myriad opportunities to be part of Keele's exciting sustainability vision through paid and volunteer opportunities, as well as being taught in Keele's exciting bespoke Sustainability Hub building, which is an exemplar of sustainable building redesign.

### **Internationalisation**

Environmental and sustainability issues, and the means of tackling these issues, are both global and local in nature. The Environment & Sustainability programme uses case studies from around the world to develop an appreciation of different environmental and sustainability challenges faced in different parts of the world. Students are encouraged to develop a global outlook, to develop a sensitive understanding and awareness of how the environment can be sustainably managed in different global contexts.

### **Employability**

Throughout the Environment & Sustainability programme there is a strong emphasis on the 'application' of the acquired skills and knowledge to addressing environmental and sustainability issues and creating future solutions, in addition to a strong emphasis on the vocational nature of an environmental and sustainability degree. In addition to a subject specific emphasis on employability within the environmental/sustainability sector, throughout the Environment & Sustainability programme students are able to develop a wide range of generic employability skills ranging from working effectively in teams, to effective written and oral communication.

Students taking the four-year Environment and Sustainability with Work Placement Year degree programme will undertake a year-long work placement in the environmental sector as part of their degree, as well as having opportunities to work with environmental professionals as part of their third-year projects, and as part of field courses.

### **Interdisciplinarity**

Keele has always been distinctive in its interdisciplinary approach to learning. The Environment & Sustainability programme continues this tradition with a highly interdisciplinary programme combining many different disciplines to gain an understanding of different perspectives of environmental and sustainability issues, allowing the programme to utilise expertise from different discipline areas at Keele. This ensures that Environment & Sustainability graduates have a holistic appreciation of environmental and sustainability issues and strategies for working towards a more sustainable future.

### **Keele Graduate attributes**

Keele University has identified a set of ten graduate attributes that characterise a successful Keele graduate. The Environment & Sustainability programme provides students with the opportunity to develop each of these areas:

- 1) ***An open and questioning approach to ideas, demonstrating curiosity, independence of thought and the ability to appreciate a range of perspectives on the natural and social worlds***

As an Environment & Sustainability student you will:

- Be encouraged to think critically and independently research and explore a range of environment and sustainability topics, in particularly new developments in the area
- Be encouraged to research particular environmental and sustainability issues from a range of different natural and social science perspectives

- 2) ***An appreciation of the development and value of Environment & Sustainability, awareness of its context and links with other disciplines, and awareness of the provisional and dynamic nature of knowledge***

As an Environment & Sustainability student you will:

- Develop an appreciation of the development of Environmental and Sustainability disciplines through an analysis of the environmental movement from different disciplinary perspectives, and reading and discussing cutting-edge research being carried out across a breadth of environmental and sustainability topics
- Be taught by environmental and sustainability experts from different disciplinary backgrounds
- Be encouraged to ask questions, develop your own research and ideas through class-led discussions, developing your research capabilities through research training modules, before carrying out your own independent research projects focussed around your ideas and interests
- Learn to tackle sustainability issues from different disciplinary perspectives

3) ***Information literacy: the ability to locate, evaluate and synthesise large amounts of frequently conflicting information, ideas and data***

As an *Environment & Sustainability* student you will:

- Be given extensive training and support in developing skills in finding, reading, understanding, and referencing relevant material in a wide range of different formats from scientific and policy reports, to websites, and cutting-edge research articles
- Be able to research and bring together a wide range of sustainability-related research to construct and support your arguments and ideas
- Gain experience in working with quantitative and qualitative primary and secondary data, being able to make sense of this and present it effectively

4) ***The ability creatively to solve problems using a range of different approaches and techniques, and to determine which techniques are appropriate for the issue at hand***

Environment & Sustainability is all about solving problems. *As an Environment & Sustainability student you will:*

- develop the skills and aptitude to tackle existing sustainability problems in order to help achieve a more sustainable future
- gain extensive training in research design and a wide range of research techniques applicable to environment and sustainability research, culminating in an independent research project

5) ***An appreciation of the social, environmental and global implications of your studies and other activities, including recognition of any ethical implications***

The environment and sustainability programme focuses on the social, environmental and global implications of society's day-to-day activities. *As an Environment & Sustainability student you will:*

- Develop a sensitive appreciation of the environmental consequences, and their social, global and ethical implications, of both society's and your own individual activities, and the ways to minimise these impacts
- Gain training in assessing safety risks and ethical implications of sustainability-related research
- Study within a School with strong environmental, social and ethical commitments
- Have many opportunities to take part in sustainability initiatives at Keele

6) ***The ability to communicate clearly and effectively in written and verbal forms for different purposes and to a variety of audiences***

*As an Environment & Sustainability student you will:*

- Gain training and extensive experience in communicating in a wide-range of different forms from essays, reports, oral presentations to field notebooks
- Gain the confidence and skills to communicate clearly and effectively to different audiences

7) ***The knowledge, skills, self-confidence and self-awareness actively to pursue your future goals***

*As an Environment & Sustainability student you will:*

- Gain regular, detailed feedback on your work, be encouraged to discuss your work with tutors, helping you to improve rapidly and develop the confidence in your capabilities
- Be actively encouraged to take part in co-curricula opportunities relating to your degree, such as volunteering and taking part in student societies, helping you to gain confidence and self-awareness through applying your skills in a 'real world' environment
- Be encouraged to regularly reflect on your personal development through personal tutoring and an independent reflective approach to your studies developed through module assessments and evaluations
- Be encouraged to regularly reflect on your aspirations and your own development throughout your programme

**8) The ability and motivation to participate responsibly and collaboratively as an active citizen in the communities in which you live and work**

*As an Environment & Sustainability student you will:*

- Work both independently and as part of a team, as part of work at Keele and during field courses
- Be encouraged to take up the many co-curriculum opportunities related to your degree (and beyond) to contribute to the University and wider community
- Learn to understand and appreciate the links between your own every-day choices and the wider environment and society

**9) A professional and reflective approach, including qualities of leadership, responsibility, personal integrity, empathy, care and respect for others, accountability and self-regulation**

*As an Environment & Sustainability student you will:*

- Be introduced to the work of professional bodies and professional standards in environment and sustainability-related areas
- Be able to effectively reflect on your own capabilities and skills, including having a good awareness of your role in a group including your part in leadership and achieving team harmony
- Be encouraged to adopt a professional approach to your studies, communications and co-curricula activities

**10) The flexibility to thrive in rapidly changing and uncertain external environments and to update skills and knowledge as circumstances require**

*As an Environment & Sustainability student you will:*

- Learn many new skills, both practical and cognitive, giving you the confidence to apply yourself to new areas in your future careers and lives
- Gain confidence in your flexibility and adaptability, acquired throughout your programme and in particular through carrying out fieldwork and your independent research project
- Be confident in your ability to learn and acquire new skills, and have a passion for continuing to learn

For more information about 'The Keele Approach to Education' and Keele's Graduate Attributes please look at the University's web pages at: <http://www.keele.ac.uk/journey/>

## **6. How is the Programme taught?**

Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

- Lectures

- Tutorials, seminars and workshops
- Practical classes
- Field courses
- Work placements
- Individual progress interviews, including profiling/ personal development planning (PDP)
- Directed reading
- Group presentations and linked discussion

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways.

## 7. Teaching Staff

As Environment and Sustainability is such an interdisciplinary subject, the current staff that deliver the Environment and Sustainability Programme come from a range of different Faculties and Schools including the School of Geography, Geology and the Environment, the School of Life Sciences, the School of Politics, International Relations and Environment, the School of Health and Rehabilitation, and the Keele Management School. The teaching and research profiles of the staff that currently deliver and support the Environment and Sustainability programme can be found on the different School websites.

There is a strong emphasis on enhancing the student learning experience within the School of Geography, Geology and the Environment, which has developed a national reputation for its learning and teaching activities. The Environmental programmes at Keele have received several Keele Teaching Innovation Awards and course developments within the Environment and Sustainability programme have received external funding and recognition from the Higher Education Academy Geography, Earth and Environmental Sciences subject centre and the HEA Education for Sustainable Development project. In recent years, several University and National awards for Excellence in Learning and Teaching have been awarded to staff within the Environment and Sustainability teaching team. Staff actively participate in teaching and learning activities, many staff hold a Postgraduate Certificate qualification in Learning and Teaching in Higher Education and are Fellows of the Higher Education Academy (the professional body for teaching and learning in higher education), and several staff members are actively involved with pedagogic research that seeks to identify ways in which the student learning experience within environmental programmes can be enhanced. The Environment and Sustainability programme has also been shortlisted within the 'Courses' category in the high profile 'Green Gown' awards.



The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

## 8. What is the Structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April.

Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are four types of module delivered as part of this programme. They are:

- Compulsory core module – a module that you are required to study on this course;
- Optional core module – these allow you some limited choice of what to study from a list of modules;
- Programme approved elective module – subject-related modules that count towards the number of subject credits required by your degree;
- Free-standing elective module – a free choice of modules that count towards the overall credit requirement but not the number of subject-related credits.

The first year introduces key concepts and skills essential for an exploration of Environment and Sustainability. The second year looks in more detail at environment and sustainability issues and helps students develop research skills for the independent investigation of environmental problems including a ~week-long residential fieldtrip to study sustainability issues in the ‘real world’. For students taking the Work Placement year, students undertake a work placement with an environmentally-focussed company or organisation. Final year students are able to specialise in areas of their interest through their choice of dissertation, environmental technology and case study topics.

Students also have a wide range of taught modules to choose from. Through this flexible degree structure students are able to retain a broad coverage of environment issues or to specialise in specific areas of interest.

### Year 1 (Level 4)

In the first year students study six core Environment and Sustainability modules and have a choice of two elective/option modules from those suggested or one or two free electives offered elsewhere in the University, giving students the opportunity to develop additional skills such as learning a language.

Compulsory Core modules	Credits	Programme Approved Elective modules	Credits
Introduction to Environment and Sustainability	15	Fundamentals of Physical Geography	15
Introductory Geology for the Environmental Sciences	15	Introductory Environmental Chemistry	15
Ecology and Environment	15	Global Warming or a New Ice Age	15
The Politics of Sustainability	15	Environmental Ethics	15
Greening Business: Employability and Sustainability	15		
People and the Environment	15		

Field courses	
Introduction to Environment and Sustainability	Local area (1 day)
	Centre for Alternative Technology. Mid-Wales (2 days, 2 nights)
	Environmental Science techniques, North Wales (5 days)

### Year 2 (Level 5)

In the second year students take five core Environment and Sustainability modules (90 credits), and have 30 credits of module choice, at least 15-credits of which must come from a choice of two politics-based modules (see below). The final 15-credit module choice can be from the remaining politics-based module, from the list of programme approved electives below or from any available University free-standing elective. Students studying abroad for one semester do not take the 30-credit module ESC-20079, and instead take 15-credits of this module during the semester that they remain at Keele (either ESC-20080 or ESC-20081).

Compulsory Core modules	Credits	Programme Approved Elective modules	Credits
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Human Impacts on the Environment: Scientific Perspectives	15	Environmental Politics and Policy	15
Work placement module	15	International Relations of the Environment	15
		Practical Physical Geography	15
Health and the Environment	15	Environmental Analytical Methods	15
Corporate Governance and Social Responsibility	15	Reconstructing Past Environments	15
Environmental and Sustainability Impact Assessment and Research Planning	30	Dynamic Geographies	15
		Geoscience and Society	15
		Research and Analytical Skills	15
		Regional Landsystems	15
		Living Together: Behaviour, Co-operation and Conflict	15
		Sustainable Chemistry	15

Field courses	
Environmental and Sustainability Impact Assessment and Research Planning	A UK-based residential field course investigating issues of environmental management and sustainability and environmental change local to the area (~7days) <b>or</b> an overseas residential field course.

### Work Placement (Level 6)

Core modules	Credits
Work Placement Year	n/a

### Year 3 (Level 6)

In the final year Environment and Sustainability students study 3 core modules (worth 60 credits in total) and choose four taught option modules from a wide-range of options offered across the University (see below).

Compulsory Core modules	Credits	Programme Approved Elective modules	Credits
Dissertation	30	Economic Development and Environmental Transformation	15
Environment and Sustainability Case Study (pre-requisite of ESC-20017 or ESC-20079)	15	Trees in their Environment	15
Local case studies in Environment & Sustainability (pre-requisite of ESC-20066)	15	Applied Insect Ecology	15
Clean Technology	15	Applied Fish Biology	15
		Conservation Biology	15
		Natural Hazards	15
		Global Environmental Change	15
		Applied GIS	15
		Coastal Environments	15
		Water Resources	15
		Glaciers and Glacial Geomorphology	15

		Contemporary topics in environmental science	15
		Environmental Politics in the US	15
		The Northern Dimension: Resources, environment and security in the Arctic	15
		Happiness and Wellbeing	15
		Animals and Society	15
		Education and Global Citizenship	15
		Environmental Crimes	15

**Field courses:** any field courses undertaken during the third year will depend on the modules chosen. It should be noted that for many students their Independent Project work is likely to include a significant amount of fieldwork.

For further information on the content of modules currently offered please visit:

[www.keele.ac.uk/recordsandexams/az](http://www.keele.ac.uk/recordsandexams/az)

### Learning Outcomes

Subject Knowledge and Understanding		
Learning Outcome	Module in which this is delivered	Principal forms of assessment (of the Level Outcome) used
<i>Successful students will be able to demonstrate knowledge &amp; understanding of:</i>		
a range of core issues of sustainability and the concepts of environment and sustainability as seen by different disciplines	Introduction to Environment and Sustainability	Reflective Learning Journal Essay Portfolio of field exercises
how interdisciplinary approaches work together and/or in tension	Introduction to Environment and Sustainability	Reflective Learning Journal Essay Portfolio of field exercises
the environmental and social sustainability responsibilities of organisations	Greening Business: Employability and Sustainability	Group video project Workbook
the environmental and social impacts of different sectors and activities within organisations (e.g. energy, transport, waste)	Greening Business: Employability and Sustainability	Group video project Workbook
the processes by which organisations can audit, improve, and monitor environmental and social impacts within the workplace	Greening Business: Employability and Sustainability	Group video project Workbook
the ways in which people interact with their environment and their approaches to dealing with environmental problems	People and the Environment	Essay Exam
the complementary nature of physical science and social science approaches to tackling	People and the Environment	Exam

environmental issues		
the relationship between 'hard scientific facts' and the contested nature of their interpretation in the environmental context	People and the Environment	Essay
outline the ways in which populations and communities function and interact in an ecosystem context	Ecology and Environment	Multiple choice questions Individual report Exam
basic theories and concepts in ecology and conservation	Ecology and Environment	Exam
the ecology and environmental issues of a specified ecosystem	Ecology and Environment	Multiple choice questions Exam
the internal structure and composition of the Earth and its development since the formation of the Solar System	Introductory Geology for the Environmental Sciences	Exam
the theory of plate tectonics, its manifestation on the Earth's current surface, and the consequences of its operation in the geological past	Introductory Geology for the Environmental Sciences	Computer task Exam
the three major subdivisions of rocks in terms of how they are formed and how their properties relate to environmental science issues	Introductory Geology for the Environmental Sciences	Exam
the emergence of 'the environment' as an object of social scientific study and political debate	The Politics of Sustainability	Time line project Exam
the development of, and debates about, the concepts of 'sustainable development' and 'sustainability'	The Politics of Sustainability	Time line project Exam
a broad range of human impacts on the environment and their wider significance and possible solutions	Human Impacts on the Environment: Scientific Perspectives	Essay Exam
the key causes of negative environmental impacts on air, water and soil quality	Human Impacts on the Environment: Scientific Perspectives	Exam
Integrate and apply knowledge of the biological, geological, chemical and social aspects of the fields of environmental science and sustainability	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio
Demonstrate understanding of the ideological and philosophical underpinning of different approaches to environmental and	Environmental and Sustainability Impact Assessment and Research Planning	Research proposal

sustainability research		
the historical origins and the evolution of the concepts of corporate governance and social responsibility	Corporate Governance and Social Responsibility	Group work assignment Exam
the role of the accounting profession in encouraging development of corporate governance codes, examining their impacts on corporate performance	Corporate Governance and Social Responsibility	Group work assignment Exam
the role of green policies and socially responsible investment in the development of accounting for corporate responsibility	Corporate Governance and Social Responsibility	Group work assignment Exam
the key issues of corporate governance and environmental accounting for business strategy	Corporate Governance and Social Responsibility	Group work assignment
the complex way in which businesses governance relates to internal and external stakeholders, and to the natural environment	Corporate Governance and Social Responsibility	Exam
The tools, techniques and strategies for managing and supporting corporate governance and social responsibility in practice	Corporate Governance and Social Responsibility	Exam
the range of strategies available for bringing about environmental-political change, including the policy process at different levels, corporate environmental responsibility, and social movement activism	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
the political dimensions of environmental issues, while understanding the particular historical, cultural and social contexts in which they arise	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
the effects differing environmental factors can have on human mental and physical health	Health and the Environment	Group presentation Individual assignment
the effect the changing environment may have on human mental and physical health	Health and the Environment	Group presentation Individual assignment
the main models, methods and criteria for carrying out a sustainability analysis	Environment and Sustainability Case Study	Sustainability analysis
Different aspects of a particular clean technology	Clean Technology	Poster Essay

<b>Subject Specific Skills</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
demonstrate familiarity with a range of ecological and geochemical laboratory and field techniques and collect, synthesise, evaluate and present environmental (geochemical, ecological, geological) data	Introduction to Environment and Sustainability	Portfolio of field exercises
research the environmental and social impacts and their potential solutions, of an area of an organisation's operations	Greening Business: Employability and Sustainability	Group video project Workbook
reflect on their own learning and the links between course material and their own lives. describe the ways in which people interact with their environment and their approaches to dealing with environmental problems	Greening Business: Employability and Sustainability	Group report Workbook
perform calculations involving simple population dynamics models	Ecology and Environment	Multiple choice questions
recognise and describe minerals in hand specimen and thin section using a hand lens, petrological microscope and related techniques	Introductory Geology for the Environmental Sciences	Practical assessment
use techniques for the acquisition, interpretation, analysis and visualisation of geoscience data (e.g. geological maps)	Introductory Geology for the Environmental Sciences	Computer task Report Practical assessment
interpret geological maps in order to understand the geological structure and stratigraphy of specific study areas, and be able to synthesise observations and interpretations within a geological report	Introductory Geology for the Environmental Sciences	Report
identify and critically discuss -- by applying relevant conceptual tools - the social, political, economic, and cultural factors that have led to the problem of 'unsustainability'	The Politics of Sustainability	Book review Time-line project Exam
Assess solutions to problems of managing disturbed/degraded/disadvantaged areas and demonstrate an understanding of environmental	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio

management issues in a range of environments and contexts		
Apply theoretical knowledge and understanding of environmental science and sustainability issues to specific social, geographical and environmental contexts	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio Research proposal
understand the use of relevant theoretical frameworks to analyse corporate governance and social responsibility issues	Corporate Governance and Social Responsibility	Group work assignment Exam
systematically and critically evaluate corporate governance, social issues, and environmental issues	Corporate Governance and Social Responsibility	Group work assignment Exam
distinguish between a range of perspectives on environmental issues and appreciate how environmental issues may be understood as political issues	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
apply conceptual tools in order to analyse critically environmental problems and controversies	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
carry out an in depth, interdisciplinary sustainability analysis of a specific case, using well-defined tools, as part of team and in a timely fashion	Environment and Sustainability Case Study	Sustainability analysis Group presentation Group report
apply theoretical concepts and ethical principles in the field of sustainability in order to analyse critically a complex 'real life' case or problem	Environment and Sustainability Case Study	Sustainability analysis Group presentation Group report

<b>Key or Transferable Skills (graduate attributes)</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will have the opportunity to develop:</i>		
communicating ideas and arguments effectively in a range of written and oral formats including the use of standard academic requirements such as referencing	Introduction to Environment and Sustainability	Reflective Learning Journal Essay Portfolio
working with team members to identify, distribute and undertake tasks necessary to complete a project.	Introduction to Environment and Sustainability	Portfolio

reflecting on and evaluate his/her own learning experience in order to improve the learning experience in future stages of the programme	Introduction to Environment and Sustainability	Reflective Learning Journal
communicating professionally in video format the conclusions and recommendations for future improvements from research into an aspect of the sustainability operations of the University	Greening Business: Employability and Sustainability	Group video project
gathering and synthesizing information and use this information to discuss, in written form, a variety of environmental issues	People and the Environment	Essay Exam
developing an argument and assemble a coherent analysis that is communicated effectively, using an appropriate academic writing style and correctly apply the Harvard system of referencing	The Politics of Sustainability	Book review Time line project Exam
participating with confidence in tutorial discussions, having prepared effectively in advance. Skills of effective speaking, listening, and question posing will be developed	The Politics of Sustainability	Time line project
communicating effectively in written form about an environmental issue, including possible solutions and barriers to their adoption, in an interesting, engaging and informative way	Human Impacts on the Environment: Scientific Perspectives	Essay
searching for and assimilating information from the literature on a key environmental issue	Human Impacts on the Environment: Scientific Perspectives	Essay
carrying out a personal skills audit in relation to their work placement and identify their skills gaps and translate these into achievable learning outcomes	Work placement module	Portfolio of reflective exercises
relating academic theory learnt as part of the taught degree to real situations in the work place	Work placement module	Portfolio of reflective exercises Report
developing needed work-related skills through practice	Work placement module	Portfolio of reflective exercises Report
critically evaluating their learning from the work placement	Work placement module	Report
enhancing their career knowledge	Work placement module	Portfolio of reflective exercises

		Report
Design a piece of research achievable as a third year dissertation project and applicable to the field of Environment & Sustainability; showing an ability to synthesize the research literature, select appropriate techniques for data collection and analysis, and conduct research ethically and safely	Environmental and Sustainability Impact Assessment and Research Planning	Research proposal
identifying and formulating effective arguments	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
communicating effectively verbally and in writing	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
sourcing, interpreting and synthesizing literature that is relevant to a chosen topic	Dissertation	Dissertation
critically reviewing relevant literature within the dissertation	Dissertation	Dissertation
planning, designing and executing, using appropriate research methods and processes, an independent piece of research relevant to Environment and Sustainability	Dissertation	Dissertation
communicating effectively and persuasively the results of independent research in written form	Dissertation	Dissertation
working as a team member and make individual contributions to team process and products (presentation and report)	Environment and Sustainability Case Study	Group presentation Group report
synthesising research and communicate the results of an analysis in different forms (written and graphic) to different audiences (lay-people and specialists)	Environment and Sustainability Case Study	Group presentation Group report
reflecting on and critically evaluating a team project, including the quality of the process and final products and the quality of one's own contributions to the team	Environment and Sustainability Case Study	Reflective analysis
planning and carrying out a piece of	Environment and Sustainability Case Study	Group presentation

collaborative research		Group report
Explaining specialist material in lay terms using appropriate illustrations	Clean Technology	Poster Lay-person summary

## 9. Final and intermediate awards

Credits required for each level of academic award are as follows:

<b>Honours Degree</b>	360 credits	You will require at least 120 credits at levels 4, 5 and 6.  You must accumulate at least 255 credits in Environment and Sustainability (out of 360 credits overall), with at least 60 credits in each of the three years of study, to graduate with a named single honours degree in Environment and Sustainability.  The default award for the Single Honours Environment & Sustainability is a BSc Honours degree. However, students who successfully complete at Level 6 60 credits or more of Social Sciences modules receive a BA Honours degree. The 60 credits can be made up of from Human Geography and Politics based modules, and may include the 30 credits from the Dissertation if it is of a social science nature.
<b>Diploma in Higher Education</b>	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
<b>Certificate in Higher Education</b>	120 credits	You will require at least 120 credits at level 4 or higher

**Environment and Sustainability with Placement Year:** in addition to the above students must pass a non-credit bearing module covering the placement year in order to graduate with a named degree in Environment and Sustainability with placement year. Students who do not complete, or fail the placement year, will be transferred to the three-year Environment and Sustainability programme.

**Environment and Sustainability with International Year:** in addition to the above students must pass a module covering the international year in order to graduate with a named degree in Environment and Sustainability with International Year. Students who do not complete, or fail the international year, will be transferred to the three-year Environment and Sustainability programme.

## 10. How is the Programme assessed?

The wide variety of assessment methods used within Environment and Sustainability at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

Students experience a wide-range of assessment types throughout the Environment and Sustainability degree programme, the exact combination of assessments and split between coursework and exams is dependent on the option module choices that students make throughout their degree. The range of assessments that students will encounter has been designed to promote engagement with employability skills and subject-specific skills. The following list is representative of the variety of assessment methods used within Environment and Sustainability.

The following list is representative of the variety of assessment methods used within Environment and Sustainability:

- **End of module examinations** test the ability of the student to describe, explain, and critically discuss the principles of the subject and to demonstrate competence in applying these principles to applications and to solve problems from appropriate areas of the discipline
- **Coursework, including technical reports and essays** provide the opportunity for students to develop a wide range of skills, including clear communication in a range of styles and in the synthesis of research
- **Poster or web-page presentations** demonstrate the ability of the student to present complex concepts and information in a clear and concise manner, to interact and communicate effectively within a wide range of professional environments
- **In-class exercises and practical class tests** taken either conventionally or online via the Keele Learning Environment (KLE) assess students' subject knowledge and their ability to apply it in a more structured and focused way
- **Individual or group oral presentations** assess individual student's subject knowledge and understanding. They also test their ability to work effectively as members of a team, to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development
- **Group videos** demonstrate students' ability to present research in a video format, requiring careful consideration of the key material to be included, and how best to effectively communicate a message. Such project also require students to gain experience in working effectively in a group environment
- **Field course notebook and portfolios** demonstrate students' skills in recording research carried out in a field environment, including the key skills of observation and recording
- **Practical class/laboratory reports** – structured proformas and full lab reports are formal summaries of work carried out in the laboratory and test students' understanding of the practical aspects of the programme and develop the skills necessary to enable students to present and analyse their results
- **Extended project work and technical reports** test student's knowledge of different research methodologies and the limits and provisional nature of knowledge. They also enable students to demonstrate their ability to formulate research questions and to answer them using appropriate methods

There is particular emphasis on forms of assessment such as report writing and oral presentations of direct relevance to future employment avenues.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

## 11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of

modules. The figures below are an example of activities that a student may expect on your chosen course by year/stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity	Year 1 (Level 4)	Year 2 (Level 5)	Work Placement Year	Year 3 (Level 6)
Scheduled learning and teaching activities	24%	23%	0%	16%
Guided independent Study	76%	58%	0%	84%
Placements	0%	19%	100%	0%

## 12. Accreditation

The Environment and Sustainability programmes are accredited by the Institution of Environmental Science. We are currently checking with the IES whether the BA in Environment and Sustainability and the 'with International year' will be accredited. Successful completion of the programme will assure this accreditation is met allowing students to become Graduate members of the IES upon graduation.

## 13. Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: <http://www.keele.ac.uk/student-agreement/>

Students should note that it is not possible to take both the Placement Year and International Year options.

A student who has completed a semester abroad will not normally be eligible to transfer onto the International Year option.

## 14. What are the typical admission requirements for the programme?

Subject	A-level	Subjects not included	International Baccalaureate	BTEC	Access to Higher Education Diploma	GCSE requirements
Environment and Sustainability (Single Honours)	ABB	None	34 points to include a Standard Level Science subject at 4	DDM	Obtain Access to Higher Education Diploma with 30 Level 3 credits at Distinction	Maths and Science @ C (or 4) English Language @ C (or 4)

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 6.0 or equivalent.

Please note: All non-native English speaking students are required to undertake a diagnostic English language assessment on arrival at Keele, to determine whether English language support may help them succeed with their studies. An English language module may be compulsory for some students during their first year at Keele.

Accreditation of Prior Learning (APL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here:

<http://www.keele.ac.uk/qa/accreditationofpriorlearning/>

## 15. How are students supported on the programme?

**Personal Tutors:** All students are allocated a Personal Tutor for the duration of their studies as part of the University's Personal Tutor system. The role of the Personal Tutor is to meet formally with their tutees at least once per semester to discuss progress and performance, to discuss profiling/ PDP, and to offer support and advice. In addition, to a personal tutor allocated to the student, students are encouraged to seek support from any of the Environment and Sustainability teaching and administrative staff. Students can make arrangements to see their Personal Tutor or other staff at any time and an open door policy is operated by the majority of the teaching staff so students can easily get in contact with staff either personally or via email or phone. There are very strong communication links between students and staff and a friendly and supportive environment throughout the Environment and Sustainability programme.

**Work Placement Tutor:** All students undertaking the work placement degree programme will be provided with an academic tutor, based at Keele. Students will be expected to find their own work placements however, support will be provided throughout the placement process. This will involve support ensuring the appropriateness of the placement prior to starting the Placement Year, and email/telephone/face-to-face contact with the academic tutor throughout the placement at regular intervals.

**Use of e-learning/the Keele Learning Environment (KLE):** All modules are supported by learning materials that are accessible to students via the KLE. The School supports the University's policy on module support on the KLE.

**Health and Safety:** All students admitted to the programme are expected to read the Geography, Geology and Environment Safety Handbook. Students are required to sign an agreement that they have read this Handbook, and that they will abide by the rules and regulations governing the efficient working, safety and welfare of all members both within the University and in the field. The handbook can be accessed from: <http://www.keele.ac.uk/eesg/handbooks/>

**Students with disabilities:** Students with disabilities or medical problems, who are admitted onto the Environment and Sustainability degree programme, will meet with a member of the University's Disability Services department, and the Environmental and Sustainability Course Director and the Geography, Geology and Environment Disability Officer where appropriate, at the very start of the course in order to discuss any special requirements.

Procedures will then be implemented according to the nature of the student's disability or medical problem. These procedures can range, for example, from allowing extra examination time for students diagnosed as dyslexic, to allocating additional staff or demonstrators to field classes to help students with mobility problems.

**Careers:** In addition, to the University's central Careers service there is a specific Environment and Sustainability careers tutor. Students are encouraged to seek the careers tutor for any help with deciding on postgraduate programmes and funding opportunities, discussing career options, discussing option choices in relation to specific career routes, and for help and assistance in applying for jobs and placements. Within the Keele Learning Environment there is a dedicated page to careers including several subject specific careers sites.

## 16. Learning Resources

The Geography, Geology and Environment section of the School has its own building (the William Smith Building) that contains well-equipped laboratories and lecture theatres that are used throughout the Environment and Sustainability programme. This concentration of teaching into one building enables students to identify with a specific base within the University. The foyer provides pleasant surroundings for students to meet and socialise with their peers. The Office is currently open during the week from 9.00am to 5.00pm to answer student queries and deal with administrative tasks such as the handing in and return of assignments. Teaching on specific modules takes place elsewhere in the University when there is a need for more specialised teaching facilities allowing the Environment and Sustainability programme to benefit from a wide-range of cutting-edge teaching facilities and analytical instrumentation based elsewhere within the University. Students also have access to computing facilities within the School of Geography, Geology and the Environment Sciences.

## 17. Other learning opportunities

### Study abroad (semester)

Students on the Environment and Sustainability programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (<http://www.keele.ac.uk/studyabroad/partneruniversities/>); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

### **Study Abroad (International Year)**

A summary of the International Year, which is a potential option for students after completion of year 2 (Level 5), is provided at Annex A.

### **Fieldwork**

Fieldwork is an essential part of the training in the field of Environment and Sustainability, providing both the opportunity to acquire and practice field-based skills, to develop skills of observation and recording and to work as effective members of a team.

Keele is ideally located to be able to integrate a large component of field work into its environmental programmes with a wide range of habitats in easy reach. These include the Keele campus itself with its lake system and extensive woodlands, in addition to the mining and industrial heritage of the local area providing ideal opportunities for the study of the impact of these activities on the environment.

The field course options in the second year provide the opportunities to investigate a case study of sustainable land management in the Lake District, or environmental management issues in a different part of the world on the overseas equivalent field course. Students are also encouraged to make the most of other opportunities for field work with external organisations such as Operation Wallacea, which can form part of students third year independent project work. The School provides financial support for the compulsory fieldwork elements of the degree programme.

## **18. Additional costs**

### **Environment and Sustainability - Field Course Costs**

All students will do mandatory field courses as part of their degree programme. There is a range of field courses and costs are dependent on degree route and the nature of the independent project work taken by students. *The University provides significant financial support for the compulsory fieldwork elements of the degree programme and the costs of travel and accommodation for compulsory field courses are fully paid for by the University up to and including Year 2.*

ALL Environment and Sustainability students undertake an independent research project in their final year, which MAY include fieldwork. Students are responsible for organising their own transport and accommodation as well as paying any costs incurred whilst carrying out fieldwork. These costs are extremely variable as they are dependent on where the student carries out their project. Costs are minimal if the project work is undertaken in the students' local area.

### Environment and Sustainability Work Placement Costs

Students will be responsible for organising their own work placement, with the support of the module tutors. This allows students to choose when and where to carry out their work placement, taking into consideration the potential living and travel expenses incurred and the effect on other times available to earn money. Students are encouraged to consider the potential costs incurred in carrying out the work placements at the time of setting these up. Further guidance and support on these considerations is available from the module tutors.

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

Activity	Estimated cost
Field courses – compulsory	£0
Field courses – optional	£0
Equipment – waterproof clothing and footwear for field courses	£100
<b>Total estimated additional costs</b>	<b>£100</b>

## 19. Quality management and enhancement

The quality and standards of learning in the School of Geography, Geology and the Environment are subject to a continuous process of monitoring, review and enhancement.

- The Learning and Teaching Committee of the School of Geography, Geology and the Environment is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the Environment and Sustainability Programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year and as part of the University's Curriculum Annual Review and Development (CARD) process.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Internal Quality Audit (IQA) process.

Student evaluation of, and feedback on, the quality of learning on every Environment and Sustainability module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of the Curriculum Annual Review and Development (CARD) process.
- Findings related to the Environment and Sustainability Programmes from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students in all three years of the Environment and Sustainability Programme is considered and acted on at regular meetings of the Programmes Staff/Student Liaison Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student’s degree
- Reviewing and giving advice on the structure and content of the Programme and assessment procedures

Information about current external examiner(s) can be found here:

<http://www.keele.ac.uk/ga/externalexaminers/currentexternalexaminers/>

## 20. The principles of programme design

The Environment and Sustainability Programme described in this document have been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

- UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education:  
<http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code>
- QAA Subject Benchmark Statement: Earth Sciences, Environmental Sciences and Environmental Studies (2014):  
<http://www.qaa.ac.uk/en/Publications/Documents/SBS-earth-sciences-14.pdf>
- Accreditation guidelines of the Institution of Environmental Sciences:  
<https://www.the-ies.org/accreditation>
- Keele University Regulations and Guidance for Students and Staff: <http://www.keele.ac.uk/regulations>

## 21. Document Version History

Version history	Date	Notes
Date first created	October 2016	
Revision history	V2.0: 05/2017	Restructuring of year 2 to include a new 30-credit module, which is based around field and research skills development and address a lack of both qualitative and quantitative research methods. [Major change: reissued]
	V3.0: 03/2018	Opportunity to graduate with a BA award; and additional year 3 optional modules added [minor changes]
Date approved	17 March 2017	

## Annex A

### BSc/BA (Hons) Environment and Sustainability with International Year

#### International Year Programme

Students registered for Single Honours Environment and Sustainability may either be admitted for or apply to transfer during their period of study at Level 5 to the Single Honours 'Environment and Sustainability with International Year'. Students accepted onto this programme will have an extra year of study (the International Year) at an international partner institution after they have completed Year 2 (Level 5) at Keele.

Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the BSc/BA (Hons) Environment and Sustainability and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for 'BSc/BA (Hons) Environment and Sustainability with International Year'.

#### International Year Programme Aims

In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with:

1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject
2. Experience of a different culture, academically, professionally and socially

#### Entry Requirements for the International Year

Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff.

The criteria to be applied are:

- Academic Performance (an average of 60% across all modules at Level 5 is normally required)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2<sup>nd</sup> semester of year 2 (Level 5), and by recommendation of the student's personal tutor, 1<sup>st</sup> and 2<sup>nd</sup> year tutors and programme director)

#### Student Support

Students will be supported whilst on the International Year via the following methods:

- Phone or Skype conversations with Study Abroad tutor, in line with recommended Personal Tutoring meeting points.
- Support from the University's Global Education Team

#### Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme with International Year will be able to:

- a. Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
- b. Discuss the benefits and challenges of global citizenship and internationalisation
- c. Explain how their perspective on their academic discipline has been influenced by locating it

within an international setting.

In addition, students who complete 'BSc/BA (Hons) Environment and Sustainability with International Year' will be able to:

- i) apply their experiences abroad to the specific Graduate Attributes associated with their Environment and Sustainability degree programme;
- ii) integrate, apply and develop fundamental environmental science principles to describe and explain phenomena and solve problems in the context of selected topics within contemporary Environment and Sustainability.

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

### **Course Regulations**

Students registered for the 'BSc/BA (Hons) Environment and Sustainability with International Year' are subject to the course specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise *at least 40%* in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any Environment and Sustainability module with significant overlap to Level 6 modules to be studied on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

### **Additional costs for the International Year**

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: [www.gov.uk](http://www.gov.uk)

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.